

#### **APPENDIX 4**

*Changes to paragraphs 0013 to 0035 on pages 2-7 of the specification:*

[0013] Other characteristics and advantages of the invention will become apparent from the description that follows, with reference to the annexed drawings which are only provided by way of non-limiting examples.

#### **--BRIEF DESCRIPTION OF THE DRAWINGS--**

[Figure] Fig. 1 is a lateral view, with a partial tear, showing the helmet according to the invention with one of its accessories, in particular, its support for a night-vision device[.];

[Figure] Fig. 2 is a perspective view of the helmet without its accessory[.];

[Figure] Fig. 3 is a perspective view of the helmet with its support for a night-vision device, [said] the device not being shown[.];

[Figures] Figs. 4 and 5 are views showing the supports for a night-vision device, with [its means] the system for connecting to the helmet. [Figure] Fig. 4 is a rear perspective view[.], and [Figure] Fig. 5 is a front perspective view[.];

[Figures] Figs. 6, 7, and 8 are views showing the connecting [means] system affixed to the accessory. [Figure] Fig. 6 is an outer lateral view[.], [Figure] Fig. 7 is an end view[.], and [Figure] Fig. 8 is an inner lateral view[.];

[Figures] Figs. 9, 10, and 11 are views showing the connecting bar without its lock[.];

[Figures] Figs. 12, 13, and 14 are views showing the corresponding lock[.];

[Figures] Figs. 15, 16, and 17 show the various steps in fixing the support[.];

[Figure] Fig. 18 is a rear perspective view showing how the third point for connecting the support to the helmet is obtained[.];

[Figure] Fig. 19 [showing] shows the corresponding connecting portion of [said] the support[.];

[Figures] Figs. 20-22 show the various steps in releasing the support[.];

[Figures] Figs. 23 and 24 show two types of possible accessories that can be detachably connected to the helmet[.];

[Figure] Fig. 23 shows an alternative support for a night-vision device[.];

[Figure] Fig. 24 shows the helmet according to the invention with a detachable facial protective screen[.]; and

[Figure] Fig. 25 shows the helmet of the invention with a detachable ocular protective screen.

#### --DETAILED DESCRIPTION OF THE INVENTION--

**[0014]** The protective helmet shown in [Figures] Figs. 1-24, generally designated by the reference numeral [(1)] 1 is, for example, a helmet for aircraft or helicopter pilots having a generally longitudinal plane of symmetry [(P)] P, which includes, in a known fashion, a main outer shell [(2)] 2 having a front facial opening [(3)] 3 with an internal padding commonly called the cap.

**[0015]** The main outer shell 2 is constituted by a substantially spherical wall, with a generally vertical plane of symmetry [(P)] P, which is advantageously made of a composite material of the type including a stacking of layers of reinforcing fibers, impregnated and linked to one another by a resin matrix. The fibers can be glass, aramid, Nylon, polyethylene, or carbon fibers, whereas the matrix can be a thermosetting- or thermoplastic-type resin.

**[0016]** The main outer shell [(2)] 2 includes a plurality of wall portions, namely, a front upper wall portion [(6)] 6 extended rearwardly by a rear upper wall portion [(7)] 7 itself extended downwardly by a rear lower wall portion [(8)] 32, and further includes two lateral wall portions [(9a, 9b)] 9a and 9b. The front upper portion [(6)] 6 corresponds to the zone occupied by the user's forehead and is limited by the upper edge [(10)] 10 of the facial opening [(3)] 3 which is limited laterally by two lateral edges [(11a, 11b)] 11a and 11b. The rear upper wall portion [(7)] 7 corresponds to the zone occupied by the user's skull, whereas the rear lower wall portion [(8)] 32 corresponds to the zone occupied by the user's nape of

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the neck. Moreover, the wall [(5)] 32 of the cap is limited downwardly by a lower edge [(12)] 12. The lateral wall portions [(9a, 9b)] 9a and 9b correspond to the zones occupied by the user's ears and are limited forwardly by the corresponding lateral edge [(11a, 11b)] 11a and 11b of the facial opening [(3)] 3 and downwardly by the front ends of the lower edge [(12)] 12. The connection between the lateral edges [(11)] 11a, 11b and the lower edge 12 occurs along an advantageously curved connecting [edge (13)] edges 13. The helmet 1 of the invention further includes a chin strap [(14)] 14 constituted, for example, by a flexible strap.

[0017] Furthermore, the inner covering of the shell [(2)] 2 is constituted by a cap made, for example, of a rigid foam covered with a comfort flexible foam layer and a fabric for the internal decoration of the helmet.

[0018] The helmet [(1)] 1 according to the invention can include an ocular protective screen [(5)] 5 pivotally movable about a transverse axis XX' in relation to the shell [(1)] 2 between two positions, i.e., between a lowered active position of use according to which it is positioned in front of the user's eyes and a raised inactive position of non-use according to which it is raised so as to be in front of the frontal wall of the shell 2. [Said] The screen [(5)] 5 is guided in the center of the helmet 1 by a guiding and locking carriage [(50)] 50 moving in a central slide [(51)] 51.

[0019] The helmet [(1)] 1 according to the invention is adapted to receive an accessory such as, for example, a support structure [(8, 8')] 8 or 8' for a night-vision device [(9)] 9 or a clear or tinted visor [(8'')] 8'', for example.

[0020] According to one characteristic of the invention, the helmet 1 includes a connecting and locking [means] system adapted to detachably fix one or the other of the accessories, depending on the user's needs.

[0021] Thus, according to one characteristic of the invention, connecting and locking [means] mechanisms are provided between the helmet 1 and the accessory 8, 8' or 8'', which enable the accessory to be reliably connected to the helmet 1 while allowing a particularly

simple and voluntary detachment.

[0022] The support structure 8 of the night-vision device [(8)] 2 is constituted by a wall made of a composite material that has substantially the shape of a triangular sphere portion.

[0023] It is noted that the wall [(80)] of the support structure [(8)] 8 is arranged at the level of the front upper wall portion [(6)] 6 of the shell 2, beyond and at a certain distance from the latter so as to leave a space [(e)] e enabling the protective screen [(6)] 5 to move with its guiding carriage [(50)] 50, as is particularly visible in [Figure 1a] Fig. 1. Furthermore, [said] the support [wall (8)] 8 includes at least one hole and advantageously two elongated holes [(80, 81)] or openings 80 and 81 enabling the user to have access to the guiding carriage [(50)] 50 of the ocular protective screen [(6)] 5, in order to be able to maneuver it even in the presence of the night-vision device 2.

[0024] The connecting and locking [means are constituted by a] system includes hooking [pin (15a, 15b)] pins 15a and 15b affixed to the shell [(2)] 2 of the helmet 1 and [a] hooking and locking [piece (16a, 16b)] pieces 16a and 16b affixed to the accessory [(8)] 8. Each of the pins [(15a, 15b)] pins 15a and 15b extends [outward] outwardly on both sides of the corresponding lateral [wall (9a, 9b)] walls 9a and 9b of the shell 2 and is advantageously arranged coaxially with respect to the transverse pivoting axis XX' of the ocular protective screen [(5)] 5. In addition, each of the advantageously cylindrical pins [(15a, 15b)] 15a and 15b includes a hooking groove [(150a, 150b)] 150a and 150b adapted to cooperate with the corresponding hooking [piece] pieces 16a and 16b of the support [wall] 8.

[0025] [Said] Each hooking and locking piece [(16a, 16b)] 16a and 16b is constituted by a metallic bar [(17)] 17 fixed to the support structure [(8, 8')] 8, 8' or 8'', and includes a housing [(18)] 18 open rearwardly and a pivotally movable lock [(19)] 19 biased by an elastic system such as a torsional spring [(20)] 20.

[0026] The lock [(19)] 19 is constituted by a hook-shaped metallic piece journalled on the hooking bar 17 about a pivoting axle [(21)] 21. [Said] Each lock 19 therefore includes a rear

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locking projection [(22)] 22 extending upwardly to form, together with the housing [(18)] 18 of the bar [(17)] 17, a hole [(23)] 23 adapted to cooperate with the corresponding hooking [pin (15a, 15b)] pins 15a and 15b of the shell 2.

[0027] It is noted that the housing [(18)] 18 of the bar [(17)] 17 is limited upwardly and downwardly by an upper edge [(24)] 24 and a lower edge [(25)] 25, the end of the upper edge [(24)] 24 including a first chamfer [(26)] 26. Furthermore, the rear edge [(27)] 27 of the locking projection [(22)] 22 includes a second chamfer [(28)] 28 adapted to form, together with the first chamfer [(26)] 26 of the bar, a [V (30)] V-shaped opening 30 for engaging the hooking [pin (15a, 15b)] pins 15a and 15b of the helmet 1, promoting the snap positioning of the support [wall] 8 or 8'. The lock [(19)] 19 is pivotally arranged on its corresponding bar 17 so as to be capable of pivoting [downward] downwardly along [(R)] direction R against the action of the spring 20, and to be biased in upward abutment by this spring 20.

[0028] The support 8 of the night-vision device 9 is such that its triangular wall carries a hooking piece [(16a, 16b)] 16a, 16b at each of its lateral ends [(29a, 29b)] 29a and 29b, whereas its central upper end [(29)] 29 includes a hooking [means (30)] mechanism 30 adapted to cooperate with a central upper hooking piece [(31)] 31 fixed to the wall of the shell 2 of the helmet 1. Thus, the support [wall (8)] 8 of the night-vision device [(9)] 9 is fixed to the helmet 1 at three points [(A, B, C)] , i.e., at points A, B and C, thus forming a perfect retention triangle.

[0029] [Figures] Figs. 15, 16[,] and 17 [show] illustrate the procedure for fixing the support [wall (8)] 8. [Said] The procedure begins by bringing the wall support 8 closer to the helmet 1 (see Fig. [Figure] 15), then by hooking the hooking [means (30)] mechanism 30 of the upper central end [(29)] 29 on the upper central hooking piece [(31)] 31 as shown in [Figure] Fig. 16, and then by snap engaging the hooking pieces [(16a, 16b)] 16a and 16b on the corresponding pins 15a and 15b ([Figure] see Fig. 17).

[0030] The separation of the support [(8)] 8 from the helmet [(1)] 1 is carried out just as

easily, as [shown] illustrated in [Figures] Figs. 20, 21, 22. To unlock, the user only has to press forwardly, along F, on each of the movable locks [(19)] 19 with his two thumbs engaging rear edges 27, as shown in [Figure] Fig. 20. This causes the downward pivoting of each of the locks 19, on the one hand, and the forward pivoting of the support [wall] 8, and results, therefore, in its disengagement from the pins [(15a, 15b)] 15a and 15b.

[0031] Of course, the device carried by the support [(8)] 8 can be of any type other than a device which supports the night-vision device 9, such as an assembly of optronic [means] devices, binoculars, or the like, for example.

[0032] It is noted that the support [(8)] 8 previously described and illustrated in [Figures] Figs. 1-22 is constituted by a substantially rectangular spherical wall 8, but it could be otherwise, as shown in [Figure] Fig. 23, for example. According to this alternative, the support 8 is constituted by a frontal band [(8')] 8'.

[0033] In addition, the detachable accessory can also be a clear or tinted transparent facial protective screen [(8'')] 8'' as shown in [Figure] Fig. 24, without leaving the scope of the invention, [said] the screen 8'' being detachable and pivotal about each of the pins [(15a, 15b)] 15a and 15b so as to be movable between two positions, namely, an inactive raised position [(I)] designated by I and a lowered position of use [(II)] designated by II. [Said] The detachable facial screen 8'' is therefore connected laterally to the hooking pins 15a and 15b and in its upper central portion [(29)] 29 to the guiding carriage [(50)] 50; of course, the connection to the carriage 50 is also detachable and can be, for example, as that described previously in connection with the embodiments shown in [Figures] Figs. 15-19.

[0034] The accessory can also be a detachable ocular screen [(5')] 5', as shown in [Figure] Fig. 25, the connection to the helmet 1 being identical to that of the facial screen described [in the previous paragraph] with regard to Fig. 24.

[0035] It is understood that due to the connection interface [(15a-15b, 16a-16b)] devices 15a, 15b, 16a and 16b, it is possible for the user to detachably fix an accessory and to remove

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it in order to fix another to the helmet 1.